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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/559,546

12/02/2005

Brian Douglas Smith

P-356.36 (PCT) (US)

2962

30544

7590

04/29/2008

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EXAMINER

MONIKANG, GEORGE C

ART UNIT

PAPER NUMBER

2615

MAIL DATE

DELIVERY MODE

04/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/559,546	Applicant(s) SMITH ET AL.	
	Examiner GEORGE C. MONIKANG	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-44 is/are pending in the application.
- 4a) Of the above claim(s) 40-44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/559,546.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1. Claims 35 & 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allaei, US Patent 6,957,516 B2, in view of Shoureshi, US Patent 5,629,986.

Re Claim 35, Allaei discloses a noise control device for a glass window in a building (col. 1, lines 11-13), comprising an audio frequency sensor attachable to a surface of said window (figs. 7a-7b: 710; col. 5, lines 37-54: piezoelectric sensors can sense the noise pressure which has different frequency levels), including processing means for detecting in a received signal a predetermined characteristic of noise external to said building (figs. 7a-7b: 710; col. 5, lines 37-54: impedance discontinuity elements), for generating a cancellation signal and for supplying said cancellation signal to an audio frequency actuator directly attached to the glass of the window and adapted to

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couple said signal into the glass to cause the glass to radiate the acoustic antiphase signal into the building to reduce the perceived intensity of the external noise in the building (*figs. 7a-7b: 710; col. 5, lines 37-54: impedance discontinuity elements*); but fails to disclose an encoder interface adapted to receive signals from said audio frequency sensor. However, Shoureshi does (*col. 4, lines 23-30*).

Taking the combined teachings of Allaei and Shoureshi as a whole, one skilled in the art would have found it obvious to combine the noise control device for a building glass window of Allaei with an encoder interface adapted to receive signals from said audio frequency sensor as taught in Shoureshi (*col. 4, lines 23-30*) to control noise and vibration.

Re Claim 38, the combined teachings of Allaei and Shoureshi disclose a noise control device according to claim 35, wherein the predetermined characteristic is indicative of the noise of an airplane flying over said building (*Allaei, col. 1, lines 11-18: system is designed to reduce any noise outside the window*).

Re Claim 39, the combined teachings of Allaei and Shoureshi disclose a noise control device according to claim 35, wherein the predetermined characteristic is indicative of traffic noise (*Allaei, col. 1, lines 11-18: system is designed to reduce any noise outside the window*).

2. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allaei, US Patent 6,957,516 B2, and Shoureshi, US Patent 5,629,986, as applied to claim 35 above, in view of Pelrine et al, US Patent 6,343,129 B1.

Re Claim 36, the combined teachings of Allaei and Shoureshi disclose a noise control device according to Claim 35, but fail to disclose wherein the microphone and the acoustic actuator are combined into a single device. However, Pelrine et al does (*Pelrine et al, col. 4, lines 59-63*).

Taking the combined teachings of Allaei, Shoureshi and Pelrine et al as a whole, one skilled in the art would have found it obvious to modify the noise control device of Allaei and Shoureshi with where the microphone and the acoustic actuator are combined into a single device as taught in Pelrine et al (*Pelrine et al, col. 4, lines 59-63*) to be able to pick-up external noise to be cancelled.

3. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allaei, US Patent 6,957,516 B2, Shoureshi, US Patent 5,629,986, and Pelrine et al, US Patent 6,343,129 B1, as applied to claim 35 above, in view of Wan, US Patent 5,978,489.

Re Claim 37, the combined teachings of Allaei, Shoureshi and Pelrine et al disclose the noise control device according to claim 36, with wherein said single device is a magnetostrictive actuator. However, Wan does (*col. 2, lines 41-45*).

Taking the combined teachings of Allaei, Shoureshi, Pelrine et al and Wan as a whole, one skilled in the art would have found it obvious to modify the noise control

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device of Allaei, Shoureshi with the microphone and acoustic actuator combined into a single device of Pelrine et al (*Pelrine et al, col. 4, lines 59-63*) to be able to pick-up external noise to be cancelled; with a single device is a magnetostrictive actuator as taught in Wan (*col. 2, lines 41-45*) so that the actuators could change their shapes when subjected to a magnetic field.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GEORGE C. MONIKANG whose telephone number is (571)270-1190. The examiner can normally be reached on M-F. alt Fri. Off 7:30am-5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George C Monikang/
Examiner, Art Unit 2615

4/23/2008

/Vivian Chin/
Supervisory Patent Examiner, Art Unit 2615